

**What is Claimed:**

1. A method for executing application code in a database management service (DBMS), said method comprising:

enabling said DBMS to execute .NET managed code;  
writing said application code as .NET managed code;  
transmitting said code from an application to said DBMS; and  
executing said code on said DBMS.

2. The method of claim 1 further comprising, after executing said code on said DBMS, returning a value from said DBMS to said application.

3. The method of claim 2 wherein the step of enabling said DBMS to execute .NET managed code is through the utilization of an ADO.net in-process provider (or its equivalent).

4. The method of claim 1 further comprising, before the step of executing said code on said DBMS, said DBMS receiving an invocation context from the application, and executing said code based on said invocation context.

5. The method of claim 1 further comprising, before the step of executing said code, said DBMS separating said code into an immutable part and a mutable part and, and executing said code based on the results of said operation of separating.

6. The method of claim 1 further comprising providing a cursor on any type of query executed.
7. The method of claim 1 wherein a programming model for said application is symmetrical with a programming model for said DBMS.
8. The method of claim 1 further comprising the marshaling of data between an unmanaged layer and a managed layer.
9. The method of claim 1 wherein an application operation from a group of operations comprising functions, procedures, and triggers is executed directly in the RDBMS.
10. The method of claim 9 wherein a result is returned by said DBMS to said application based on the execution of said application operation by said DBMS.
11. A system for executing application code in a database management service (DBMS), said method comprising:
  - a subsystem for enabling said DBMS to execute .NET managed code;
  - a subsystem for writing said application code as .NET managed code;
  - a subsystem for transmitting said code from an application to said DBMS; and
  - a subsystem for executing said code on said DBMS.

12. The system of claim 11 further comprising a subsystem for returning a value from said DBMS to said application after said DBMS executes said code.
13. The system of claim 12 wherein the subsystem for enabling said DBMS to execute .NET managed code comprises a subsystem utilizing an ADO.net in-process provider (or its equivalent).
14. The system of claim 11 further comprising a subsystem for said DBMS to receive an invocation context from the application and executing said code based on said invocation context before the step of executing said code on said DBMS.
15. The system of claim 11 further comprising a subsystem for said DBMS to separate said code into an immutable part and a mutable part and, and a subsystem for executing said code based on the results of said operation of separating.
16. The system of claim 11 further comprising a subsystem for providing a cursor on any type of query executed.
17. The system of claim 11 wherein a programming model for said application is symmetrical with a programming model for said DBMS.

18. The system of claim 11 further comprising a subsystem for the marshaling of data between an unmanaged layer and a managed layer.

19. The system of claim 11 further comprising a subsystem for an application operation from a group of operations comprising functions, procedures, and triggers to executed directly in the RDBMS.

20. The system of claim 19 further comprising a subsystem by which a result is returned by said DBMS to said application based on the execution of said application operation by said DBMS.

21. A computer-readable medium comprising computer-readable instructions for executing application code in a database management service (DBMS), said computer-readable instructions comprising instructions for:

enabling said DBMS to execute .NET managed code;

writing said application code as .NET managed code;

transmitting said code from an application to said DBMS; and

executing said code on said DBMS.

22. The computer-readable instructions of claim 21 further comprising instructions for returning a value from said DBMS to said application after executing said code on said DBMS.

23. The computer-readable instructions of claim 22 further comprising instructions for said DBMS to execute .NET managed code through the utilization of an ADO.net in-process provider (or its equivalent).

24. The computer-readable instructions of claim 21 further comprising instructions for said DBMS to receive an invocation context from the application and execute said code based on said invocation context.

25. The computer-readable instructions of claim 21 further comprising instructions for said DBMS to separate said code into an immutable part and a mutable part and execute said code based on the results of said operation of separating.

26. The computer-readable instructions of claim 21 further comprising instructions for providing a cursor on any type of query executed.

27. The computer-readable instructions of claim 21 further comprising instructions for a programming model for said application that is symmetrical with a programming model for said DBMS.

28. The computer-readable instructions of claim 21 further comprising instructions for the marshaling of data between an unmanaged layer and a managed layer.

29. The computer-readable instructions of claim 21 further comprising instructions for an application operation from a group of operations comprising functions, procedures, and triggers to be executed directly in the RDBMS.

30. The computer-readable instructions of claim 29 further comprising instructions whereby a result is returned by said DBMS to said application based on the execution of said application operation by said DBMS.